



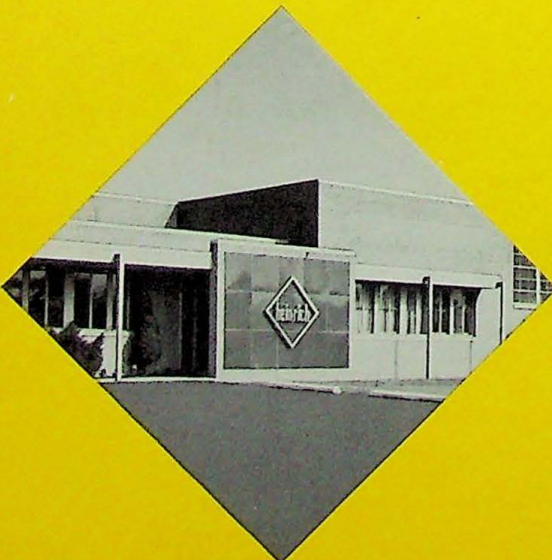
heinrich

J. A. JEAN MACHINERY CO.
302 INDUSTRIAL WAY ■ SAN CARLOS, CALIF. 94070
PHONE 593-2118



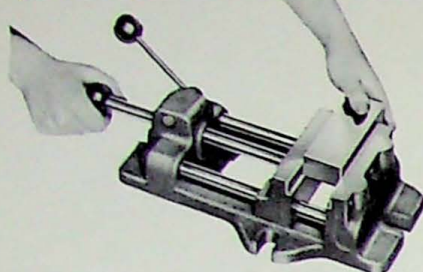
VICES

GRIP-MASTER QUICK-ACTING VISES • AIR VISES • SELF-CENTERING VISES • CROSS-HOLE DRILL JIGS • AIR COLLET CHUCK • METAL CUTTING TOOLS



Grip-Master VISES AND FIXTURE LOCKS

Grip-Master DRILL PRESS VISES



V-Block Attachment Holds Round Stock

Screwless design for rapid opening, closing and locking. To set, push center bar up to work. Press on lever cams jaw ahead $3/32"$, exerting holding pressure adjustable from 400 to 1600 lb. Recessed parallel jaw inserts, $5/8"$ deep, level work, can be removed to accommodate jig and fixture components. Hollow base for clear through drilling. Hardened and ground bars and locking mechanism.

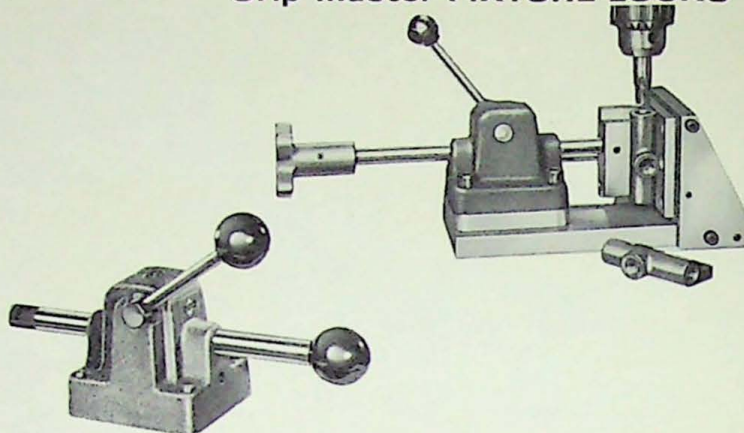
No.	Jaw Width	Jaw Opening	Depth to Bars	Shipping Weight	Price	
					Vise	V-Block
3-SV	3"	3"	$1\frac{1}{4}"$	10 lb.	\$28.50	\$ 8.00
3-PA*					33.50	
4-GM	4"	$4\frac{1}{16}"$	$1\frac{1}{16}"$	19 lb.	39.50	9.25
4-GMPA*					44.50	
6-SV	6"	$6\frac{3}{16}"$	$1\frac{3}{16}"$	32 lb.	52.50	12.00
6-PA*					59.50	
8-SV	8"	$8\frac{1}{16}"$	2"	50 lb.	69.50	14.50
8-PA*					76.50	

Three-Sided Vises, Sides Ground at Right Angles to Jaws.

3-TS	3"	3"	$1\frac{1}{4}"$	10 lb.	31.50	8.00
4-TS	4"	$4\frac{1}{16}"$	$1\frac{1}{16}"$	19 lb.	42.50	9.25

* PA (Pumping Action) — Operator is able to "pump" jaw forward, thereby "taking up" on compressible materials.

Grip-Master FIXTURE LOCKS



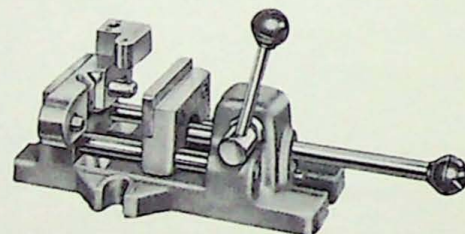
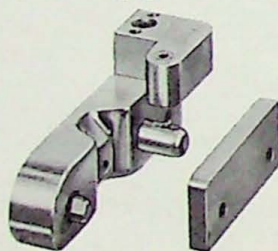
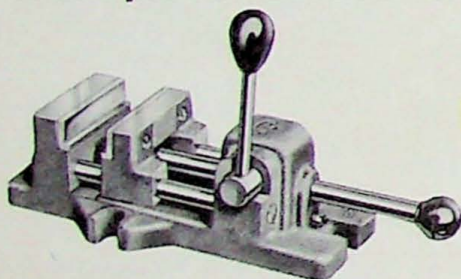
Quick acting clamps simplify jig and fixture design, speed production. Long travel provides plenty of chip clearance, easy loading and unloading. Gets into hard-to-reach places. Bar soft 1" on one end for adapting to fixture. Screwless design for rapid positioning and locking. To set, push center bar up to work. Press on lever cams jaw ahead $3/32"$ exerting holding pressure adjustable from 400 to 1600 lb.

No.	Length	Width	Height	Length of Holding Bar*	Shipping Weight	Net Price
2-FL	$3\frac{1}{16}"$	$3\frac{3}{16}"$	$2\frac{7}{8}"$	9" (.493 Dia.)	4 lb.	\$18.00
2-PA**						23.00
9-FL	$4\frac{1}{4}"$	$3\frac{1}{16}"$	$3\frac{1}{16}"$	10" (.742 Dia.)	8 lb.	21.50
9-PA**						28.50

* Special bars available in 12, 14, 16, 18 and 24-in. lengths.

** PA (Pumping Action) — Operator is able to "pump" jaw forward, thereby "taking up" on compressible materials.

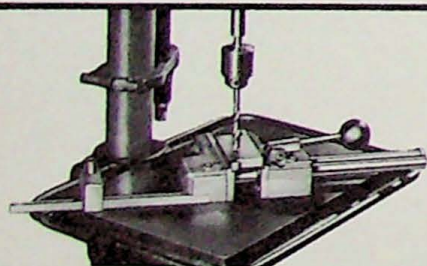
A simple formula for solving tooling problems . . .



COST-CONSCIOUS TOOL DESIGNERS RECOMMEND STARTING WITH GRIP-MASTERS . . .

THEN, IT IS NECESSARY ONLY TO DESIGN AND MAKE FIXTURE DETAILS AS SHOWN.

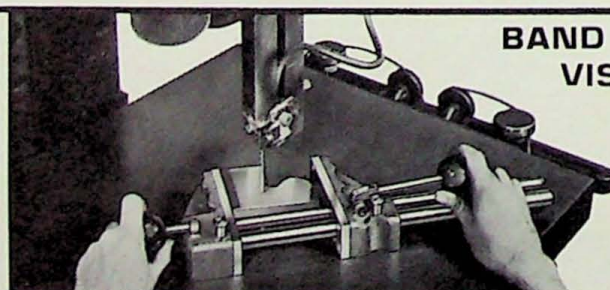
THE RESULT IS A QUICKLY MADE, ACCURATE AND LOW-COST PRODUCTION TOOL.



SAFETY DRILL VISE

Sets instantly by sliding movable jaw into position. Press on lever advances jaw, locking workpiece securely. Built-in recessed parallel jaws hold work square. Vertical V-Groove in jaw provides grip on rounds. Mounts on drill press table, swings away when not in use.

No.	Jaw Width	Jaw Length	Jaw Opening	Jaw Depth to Bar	Shipping Weight	Net Price
13-WH	$1\frac{3}{4}"$	$5\frac{1}{2}"$	$12\frac{3}{4}"$	3"	13 lb.	\$44.50



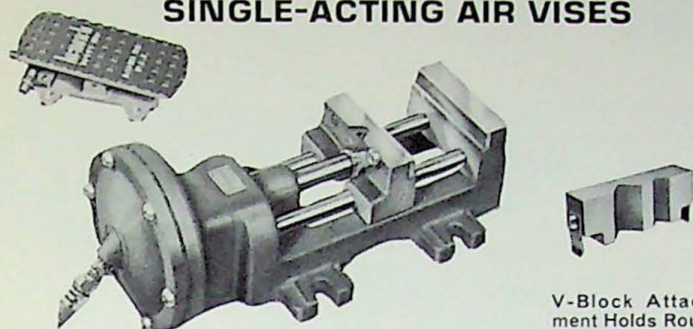
BAND SAW VISE

Sets instantly by sliding movable jaw into position. Press on lever advances jaw, locking workpiece securely. Hands are clear of saw for safe operation.

No.	Jaw Width	Jaw Length	Jaw Opening	Jaw Depth to Bar	Shipping Weight	Net Price
12-WH	$1\frac{3}{4}"$	$5\frac{1}{2}"$	$12\frac{3}{4}"$	3"	13 lb.	\$39.50

... AIR VISES AND CLAMPS

SINGLE-ACTING AIR VISES

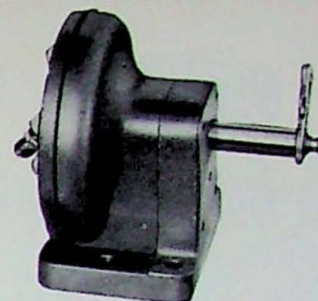


V-Block Attachment Holds Round Stock

Diaphragm type, spring-return air cylinder, 3/8" maximum jaw travel. Holding power, 15X air pressure. Ratchet adjusting screw for quick positioning. Recessed parallel jaw inserts, 5/8" deep, level work, can be removed to accommodate jig and fixture components. Hollow base for clear through drilling. Furnished with No. 34-12CI Three-Way Foot Treadle Valve, and two No. 34-14 air hoses.

No.	Jaw Width	Jaw Opening	Jaw Depth to Bars	Shipping Weight	Price	
					Vise	V-Block
33	3"	3 1/8"	1 1/4"	20 lb.	\$52.50	\$8.00
44	4"	4 3/8"	1 3/8"	30 lb.	66.50	9.25

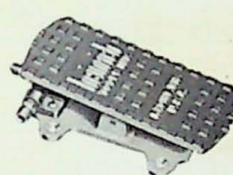
SINGLE-ACTING AIR CLAMPS



Diaphragm type, spring-return air cylinder, 3/8" maximum travel. Holding power, 15X air pressure. Ratchet adjusting screw for quick positioning. May be mounted for vertical or horizontal operations. Piston rod adjustable to any point 2-7/8" by means of ratchet-operated triple-lead thread adjusting screw. Operates with Heinrich No. 34-12CI Three-Way Foot Treadle Valve and two No. 34-14 hoses.

No.	Over-all Height	Overall Width	Depth of Base	Min. Dim. Rod Extension	Shipping Weight	Net Price
55-3	6 1/8"	5 3/4"	3 3/8"	3/8"	11 lb.	\$34.00
55-4	6 1/8"	5 3/4"	3 3/8"	2 3/8"	11 lb.	34.00

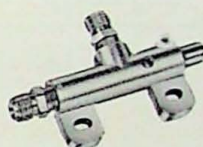
AIR ACCESSORIES three-way for single-acting units



No. 34-12CI FOOT TREADLE VALVE \$10.00



No. 34-18 HAND VALVE \$9.50



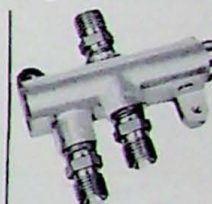
No. 34 AIR VALVE \$2.75



No. 45-12CI FOOT TREADLE VALVE \$14.00



No. 45-18 HAND VALVE \$12.50



No. 45 AIR VALVE \$4.95

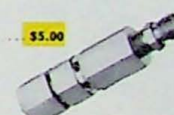
No. 12-005-002 AIR FILTER \$9.90



No. 11-002-019 AIR REGULATOR, WITH GAUGE \$9.85



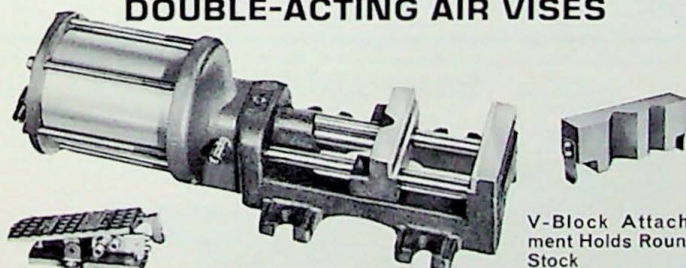
No. 36 QUICK EXHAUST VALVE \$5.00



No. 34-14 AIR HOSE \$2.75



DOUBLE-ACTING AIR VISES



V-Block Attachment Holds Round Stock

Double-acting, piston type air cylinders. Full travel of jaw opening. Return of jaw under air pressure. Stop rod, cut to desired length, regulates opening by limiting jaw return. Recessed parallel jaw inserts, 5/8" deep, level work, can be removed to accommodate jig and fixture components. Hollow base for clear through drilling. Furnished with No. 45-12CI Four-Way Foot Treadle Valve, and three No. 34-14 hoses.

No.	Jaw Width	Jaw Opening	Jaw Depth to bars	Power Factor	Shpg. Wt.	Price	
						Vise	V-Block
DA-3301	3"	3 1/4"	1 1/4"	15X	25 lb.	\$78.50	\$8.00
DA-4401	4"	5"	1 3/8"	15X	34 lb.	94.50	9.25
DA-6601	6"	7 3/8"	2 1/2"	19X	82 lb.	148.50	14.50

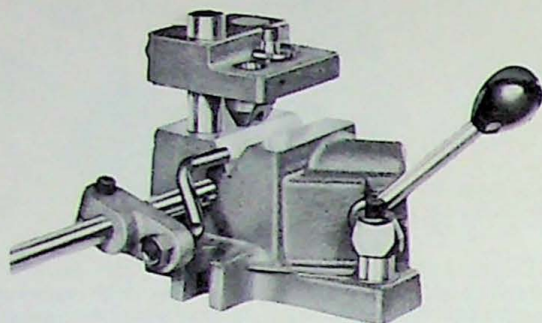
DOUBLE-ACTING AIR CLAMPS



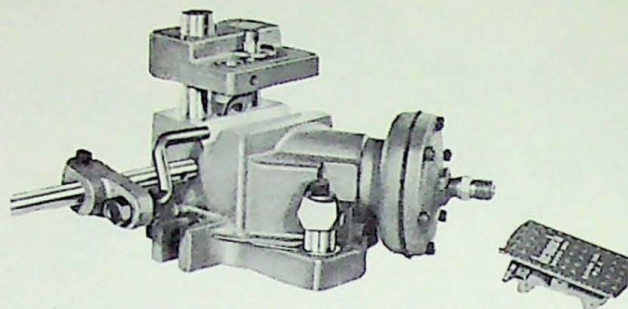
Long travel, piston type air cylinder. Holding power up to 19X air pressure. Mounting holes provided for horizontal or vertical mounting. Operates with No. 45-12CI Four-Way Foot Treadle and three No. 34-14 hoses.

No.	Over-all Height	Overall Width	Depth of Base	Piston Travel	Power Factor	Shipping Weight	Net Price
DA-5503	6 1/8"	5 3/4"	3 3/8"	3 3/8"	15X	13 lb.	\$51.50
DA-5504	6 1/8"	5 3/4"	3 3/8"	4 1/8"	15X	14 lb.	52.50
DA-6607	6 3/4"	8"	6"	7 3/8"	19X	59 lb.	117.00

ADJUSTABLE CROSS-HOLE DRILL JIGS



No. 305, 605 and 905
(Hand Operated)

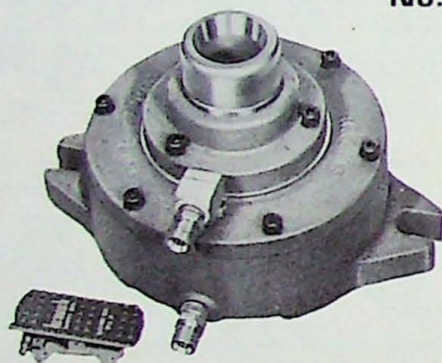


No. AR-305, AR-605 and AR-905
(Air Operated)
Furnished with foot treadle and hoses

For cross-hole drilling of 1/8" to 2-1/2" round or hex stock. Clamping plate adjusts to size of workpiece. A press on locking lever or actuating air valve, pulls the clamping plate down against the workpiece, with a travel of 3/64". Release lever or air valve and the part can be removed. An adjustable stop with 9" long rod for locating work longitudinally, furnished for use on either side of jig. Furnished with liners indicated to hold standard ASA Bushings.

Model	Capacity, in.	I.D. of Liners Furnished	Shipping Weight	Net Price
305	1/8 to 3/4	3/16, 1/2	13 lb.	\$ 64.50
AR-305			20 lb.	82.00
605	3/4 to 1 1/2	3/16, 1/2, 3/4	20 lb.	79.50
AR-605			27 lb.	97.50
905	1 1/2 to 2 1/2	3/16, 1/2, 3/4	40 lb.	125.00
AR-905		1, 1 3/8	50 lb.	145.00

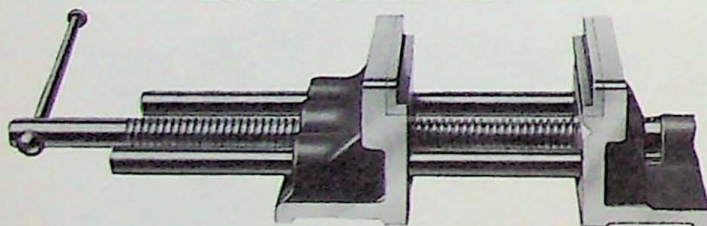
No. 1-AC AIR COLLET FIXTURE



Uses standard 5-C collets up to 1-1/16" dia. to hold round, hexagonal and square workpieces. Has 1-7/64" hole through unit. Double-acting air cylinder provides power 18X air pressure. Furnished with Four-Way Foot Treadle and three hoses.

Model	Overall Width	Overall Height	Shipping Weight	Net Price
1-AC, Complete	8 1/4"	5"	26 lb.	\$106.50
1-AC-A, Fixture only	8 1/4"	5"	18 lb.	92.50

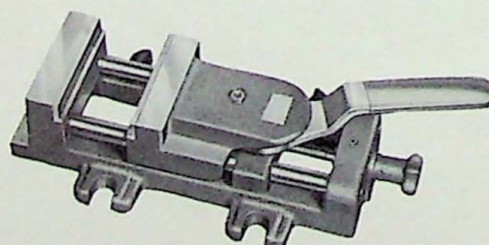
DRILL PRESS VISE



Can be used from three sides. Removable recessed parallel jaw inserts, 5/8" deep, level work. Ample clearance from jaw step to table. Sides precision ground at right angles to jaws. Horizontal V-Groove in Models 20 and 30 holds round stock for side and end drilling.

No.	Jaw Width	Jaw Opening	Jaw Depth to Bars	Overall Height	Shipping Weight	Net Price
10	3"	3 3/8"	1 1/16"	2 1/4"	5 lb.	\$23.50
20	6"	10"	2"	4 1/4"	21 lb.	44.50
30	8"	10"	2 1/2"	5"	36 lb.	57.50

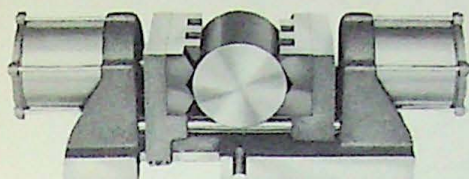
CAMLOCK VISE



A short, horizontal movement of the locking lever securely clamps or releases the part. Recessed parallel jaw inserts, 5/8" deep, level work, can be removed to accommodate jig and fixture components.

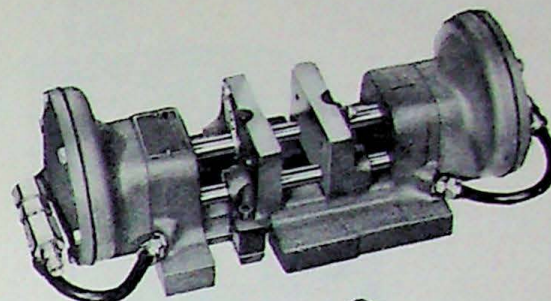
No.	Jaw Width	Jaw Opening	Jaw Depth to Bars	Overall Lgth. x Hgt.	Shipping Weight	Net Price
4-CL	4"	4"	1 3/8"	11 3/4" x 3 3/16"	23 lb.	\$62.50

SELF-CENTERING PRODUCTION VISES



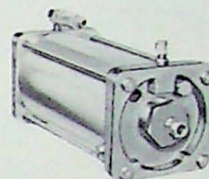
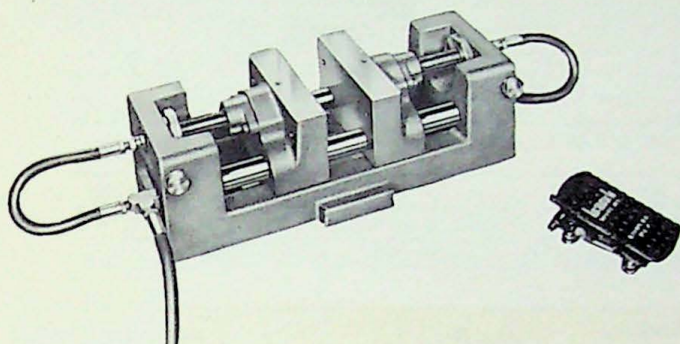
Models DA-2200-SC, DA-6600-SC, DA-8800-SC

Double-acting, piston type air cylinders, return of jaws under air pressure. Stop rod regulates jaw return. (Furnished without controls. Interlocking V-Jaws available for above three models.)



Model 2200

Single-acting, diaphragm type, spring return air cylinders. Jaws independently adjustable by ratchet. (Furnished with Foot Treadle and Hoses.)



Model 77

Hydraulic cylinders. Pressure generated by air-hydraulic booster. Spring return. Knurled adjusting nuts set jaws. (Furnished with Air-Hydraulic Booster, Foot Treadle and Hoses.)

For repetitive machining at pre-determined points on any series of workpieces. Automatically centers parts with varying outside dimensions. Each of two opposing jaws is actuated directly by cylinders on both ends of the vise. Jaws are connected by a concealed gear and rack so that they move together equally on both sides of center, within an accuracy of $\pm .001$ ".

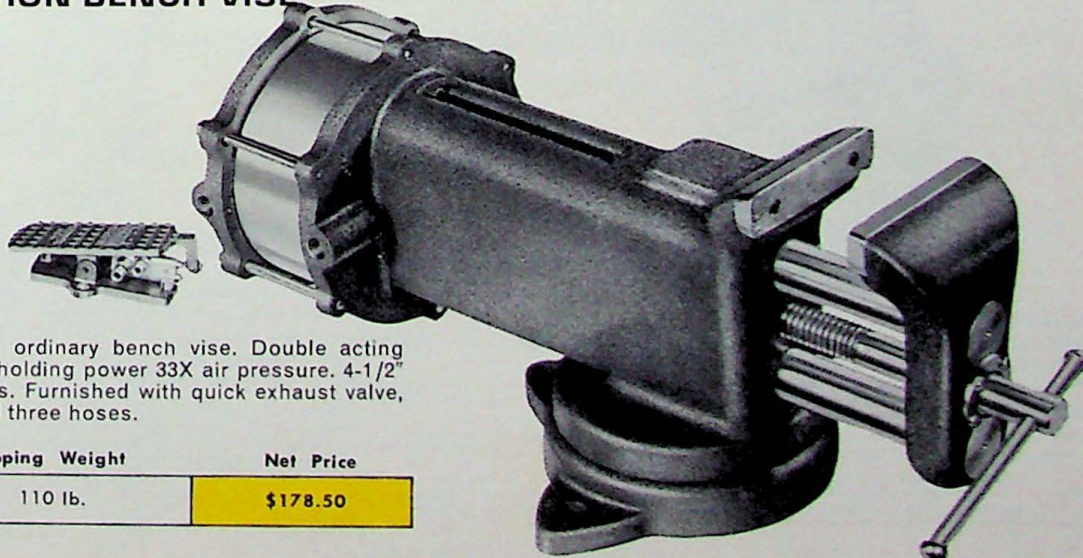
Model	Jaw Width	Jaw Depth	Jaw Travels Each/Total	Jaw Opening Min./Max.	Overall Lgth./Hgt.	Power Factor	Shipping Weight	Net Price
DA-2200-SC	4"	2"	1 1/8" / 2 1/4"	1" / 3 1/4"	20 1/2" / 6 1/8"	15X	44 lb.	\$195.00
DA-6600-SC	6"	3 1/2"	3" / 6"	2 3/4" / 8 3/4"	26 1/2" / 8 7/8"	19X	152 lb.	450.00
DA-8800-SC	8"	6 1/2"	5 1/4" / 10 1/2"	3 1/2" / 14"	38 1/4" / 12 3/8"	33X	390 lb.	*
2200	4"	2"	3/8" / 3/4"	1" / 3 1/4"	17" / 4 7/8"	15X	49 lb.	165.00
77	7"	2 7/8"	1 1/8" / 1 3/8"	0 / 7 3/4"	20" / 6 1/4"	40X	206 lb.	750.00

*Write for quotation.

INTERLOCKING HORIZONTAL V-Jaws:

Model	Capacity (Round) Min.	Max.	Shipping Weight	Net Price
2219 (for DA-2200-SC)	1 1/4"	1-3/4"	6 lb.	\$135.00
6619 (for DA-6600-SC)	1"	5"	18 lb.	165.00
8819 (for DA-8800-SC)	2"	9"	53 lb.	195.00

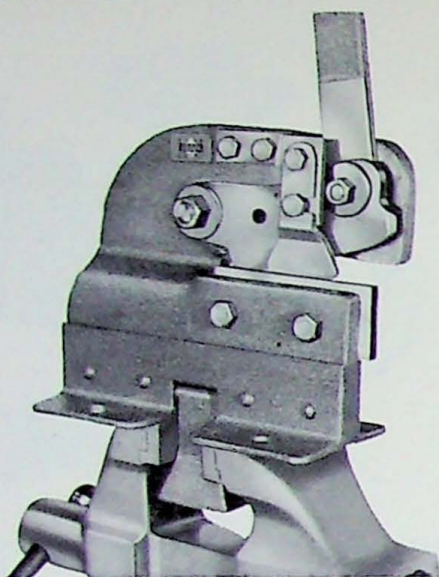
No. 14 PRODUCTION BENCH VISE—



Opens and closes like an ordinary bench vise. Double acting cylinder provides 1" travel, holding power 33X air pressure. 4-1/2" jaw width opens to 6 inches. Furnished with quick exhaust valve, Four-Way Foot Treadle and three hoses.

Model	Shipping Weight	Net Price
No. 14	110 lb.	\$178.50

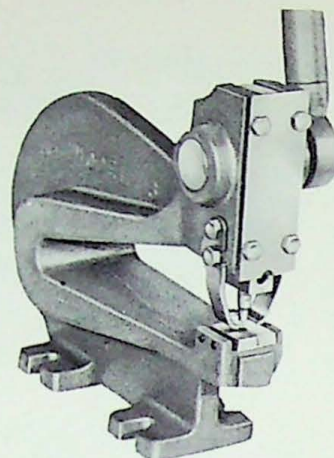
MODEL NO. 1 PORTABLE SHEAR



Shears wide flat stock up to 1/8" thick, straight cuts or outside curves. Cuts rods up to 5/16". May be mounted on a bench or clamped in a vise.

No. 1	Shipping Weight, 18 lb.	Each \$54.50
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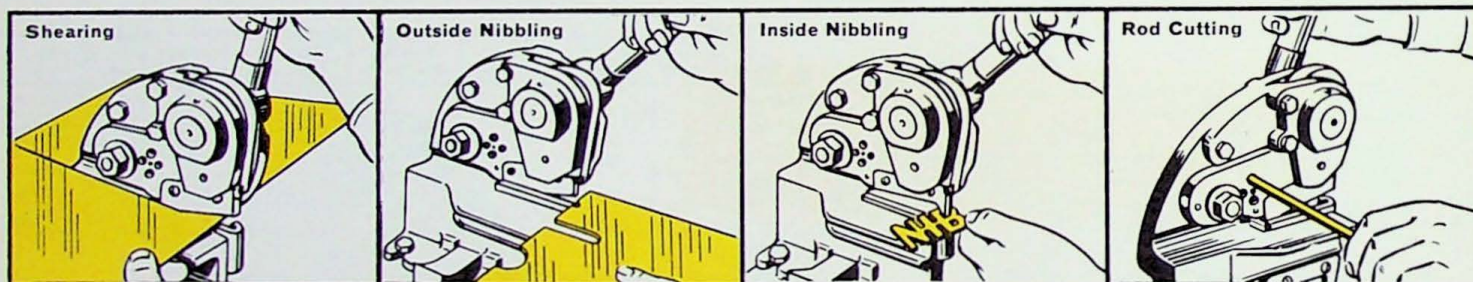
MODEL NO. 6 DEEP THROAT BENCH PUNCH



Punches a 1/2" hole through 1/8" thick steel. Eight-inch throat depth. Punches and dies available in rounds from 1/16" to 1/2" by 64ths. 24" handle. Shipping weight, 44 lbs.

No. 6 Punch,	Each \$79.50
Extra Punches and Dies, per set	3.00

(Price includes 1/4" Round Punch and Die Set unless other size is specified.)



MODEL NO. 4 HANDNIB

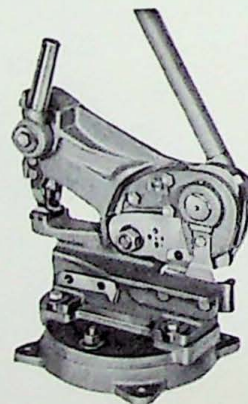


A combination nibbler, shear and rod cutter. May be clamped in a bench vise or mounted on a bench. Nibbles sheet metal up to 3/16" into any shape — inside or outside. Inside nibbling depth of cut 4" from any outside edge. Shears wide flat stock up to 3/16" — straight cuts and outside curves. Cuts rods up to 3/8" dia. Shipping weight, 29 lbs.

No. 4-A, for Inside and Outside Nibbling, Shearing and Rod Cutting	Each \$125.00
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No. 4-B, for Shearing and Rod Cutting only	Each 105.00
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MODEL NO. 5-A HANDNIB



A combination nibbling, shearing, rod cutting and punching machine. Nibbles sheet metal up to 3/16" into any shape — inside or outside. Inside nibbling depth of cut 4" from any outside edge. Shears wide flat stock up to 3/16" — straight cuts and outside curves. Cuts rods up to 3/8" dia. Punching capacity up to 1/2" hole through 1/8" thick mild steel. Punches and dies available in rounds from 1/16" to 1/2" by 64ths. 24" handle. Shipping weight, 90 lbs.

No. 5-A,	Each \$230.00
Extra Punches and Dies, per set	3.00

(Price includes 1/4" Round Punch and Die Set unless other size is specified.)

FEATURES...

heinrich Grip-Master VISE APPLICATIONS

A simple formula for solving loading problems.

Cuts tooling costs up to 75%.

heinrich Grip-Master FIXTURE LOCKS

Simplify jig and Fixture design. Eliminate special locking details.

**APPLICATION IDEAS
TO CUT TOOLING COSTS!**

**DIMENSIONAL DETAILS
FOR THE TOOL DESIGNER!**

heinrich AIR COLLET FIXTURE

Model 1-AC

heinrich PRODUCTION BENCH VISE

Model 1-B

heinrich SELF-CENTERING VISES

Parts List and Instructions

heinrich SELF-CENTERING CYLINDERS

Model	Material	Weight	Clamping Force	Max. Workpiece Size
1-SC	Steel	15 lbs.	1000 lbs.	4" dia.
2-SC	Steel	25 lbs.	2000 lbs.	6" dia.
3-SC	Steel	45 lbs.	4000 lbs.	8" dia.
4-SC	Steel	75 lbs.	6000 lbs.	10" dia.
5-SC	Steel	120 lbs.	10000 lbs.	12" dia.

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